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SEQUENCE LISTING

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Morse, Mohamad

<120> IMMUNOLOGICAL METHODS TO MODULATE MYOSTATIN IN
VERTEBRATE SUBJECTS

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<160> 39

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<212> DNA

<213> bos taurus

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1128

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 Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Leu Trp Arg Glu Asn Thr
 35 40 45
 Thr Ser Ser Arg Leu Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
 50 55 60
 Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Ala Ile Arg Gln Leu
 65 70 75 80
 Leu Pro Lys Ala Pro Pro Leu Leu Glu Leu Ile Asp Gln Phe Asp Val
 85 90 95
 Gln Arg Asp Ala Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
 100 105 110
 Ala Arg Thr Glu Thr Val Ile Thr Met Pro Thr Glu Ser Asp Leu Leu
 115 120 125
 Thr Gln Val Glu Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
 130 135 140
 Lys Ile Gln Tyr Asn Lys Leu Val Lys Ala Gln Leu Trp Ile Tyr Leu
 145 150 155 160
 Arg Pro Val Lys Thr Pro Ala Thr Val Phe Val Gln Ile Leu Arg Leu
 165 170 175
 Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
 180 185 190
 Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
 195 200 205
 Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
 210 215 220
 Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr
 225 230 235 240
 Phe Pro Glu Pro Gly Glu Asp Gly Leu Thr Pro Phe Leu Glu Val Lys
 245 250 255
 Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
 260 265 270
 Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val

275	280	285
Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr		
290	295	300
Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys		
305	310	315 320
Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala		
	325	330 335
Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr		
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Phe Asn Gly Glu Gly Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val		
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Val Asp Arg Cys Gly Cys Ser		
370	375	

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 <222> (1)..(60)

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 <223> Description of Artificial Sequence: MYOS 1 peptide coding sequence, Figure 2

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 Gly Ser Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys Asp Glu His Ser
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 acc gaa aga tct 60
 Thr Glu Arg Ser
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<210> 4
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: MYOS 1 peptide coding sequence, Figure 2

<400> 4
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 1 5 10 15
 Thr Glu Arg Ser
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<210> 5
 <211> 51
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: MYOS 3 peptide coding sequence,
 Figure 3

<220>
 <221> CDS
 <222> (1)..(51)

<400> 5
 gga tcc tct cgt tgc tgt cgc tat ccg ctg acc gtt gac ttc gaa aga 48
 Gly Ser Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Arg
 1 5 10 15
 tct 51
 Ser

<210> 6
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: MYOS 3 peptide coding sequence,
 Figure 3

<400> 6
 Gly Ser Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Arg
 1 5 10 15
 Ser

<210> 7
 <211> 57
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: MYOS 5 peptide coding sequence,
 Figure 4

<220>
 <221> CDS
 <222> (1)..(57)

<400> 7
 gga tcc ttc gaa gct ttt ggt tgg gac tgg atc att gca ccg aaa cgt 48
 Gly Ser Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg
 1 5 10 15
 tat aga tct 57
 Tyr Arg Ser

<220>
<223> Description of Artificial Sequence: MYOS 9 peptide coding sequence,
Figure 6

<220>
<221> CDS
<222> (1)..(72)

<400> 11
gga tcc gaa ttc gtt ttc ctg cag aaa tat ccg cat acc cat ctg gtt 48
Gly Ser Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
1 5 10 15

cat cag gct aac ccg cgt aga tct 72
His Gln Ala Asn Pro Arg Arg Ser
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<210> 12
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 9 peptide coding sequence,
Figure 6

<400> 12
Gly Ser Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
1 5 10 15

His Gln Ala Asn Pro Arg Arg Ser
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<210> 13
<211> 81
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 11 peptide coding sequence,
Figure 7

<220>
<221> CDS
<222> (1)..(81)

<400> 13
gga tcc gct ggt ccg tgc tgt tat ccg acc aaa atg tct ccg atc aac 48
Gly Ser Ala Gly Pro Cys Cys Tyr Pro Thr Lys Met Ser Pro Ile Asn
1 5 10 15

atg ctg tat ttc aac ggt gaa tgc cag aga tct 81
Met Leu Tyr Phe Asn Gly Glu Cys Gln Arg Ser
20 25

<210> 14
<211> 27
<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MYOS 11 peptide coding sequence, Figure 7

<400> 14

Gly Ser Ala Gly Pro Cys Cys Tyr Pro Thr Lys Met Ser Pro Ile Asn
1 5 10 15

Met Leu Tyr Phe Asn Gly Glu Cys Gln Arg Ser
20 25

<210> 15

<211> 72

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MYOS 13 peptide coding sequence, Figure 8

<220>

<221> CDS

<222> (1)..(72)

<400> 15

gga tcc gaa tgc cag atc att tat tgc aaa atc ccg gct atg gtt gta 48
Gly Ser Glu Cys Gln Ile Ile Tyr Cys Lys Ile Pro Ala Met Val Val
1 5 10 15

gac cgt tgc ggt tgt tct aga tct 72
Asp Arg Cys Gly Cys Ser Arg Ser
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<210> 16

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MYOS 13 peptide coding sequence, Figure 8

<400> 16

Gly Ser Glu Cys Gln Ile Ile Tyr Cys Lys Ile Pro Ala Met Val Val
1 5 10 15

Asp Arg Cys Gly Cys Ser Arg Ser
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<210> 17

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MYOS 15 peptide coding sequence,

Figure 9

<220>

<221> CDS

<222> (1)..(63)

<400> 17

gga	tcc	gaa	cag	aaa	gaa	aac	gtt	gaa	aaa	gaa	ggt	ctg	tgc	aac	gct	48
Gly	Ser	Glu	Gln	Lys	Glu	Asn	Val	Glu	Lys	Glu	Gly	Leu	Cys	Asn	Ala	
1				5					10					15		

tgc	ctg	tgg	aga	tct	63
Cys	Leu	Trp	Arg	Ser	
			20		

<210> 18

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MYOS 15 peptide coding sequence, Figure 9

<400> 18

Gly	Ser	Glu	Gln	Lys	Glu	Asn	Val	Glu	Lys	Glu	Gly	Leu	Cys	Asn	Ala
1				5					10					15	

Cys	Leu	Trp	Arg	Ser
			20	

<210> 19

<211> 60

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: MYOS 17 peptide coding sequence, Figure 10

<220>

<221> CDS

<222> (1)..(60)

<400> 19

gga	tcc	cat	gac	ctg	gct	gtt	acc	ttc	ccg	gaa	ccg	ggt	gaa	gac	ggt	48
Gly	Ser	His	Asp	Leu	Ala	Val	Thr	Phe	Pro	Glu	Pro	Gly	Glu	Asp	Gly	
1				5					10					15		

ctg	acc	aga	tct	60
Leu	Thr	Arg	Ser	
			20	

<210> 20

<211> 20

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: MYOS 17 peptide coding sequence,
Figure 10

<400> 20

Gly Ser His Asp Leu Ala Val Thr Phe Pro Glu Pro Gly Glu Asp Gly
1 5 10 15
Leu Thr Arg Ser
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<210> 21
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 19 peptide coding sequence,
Figure 11

<220>
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<222> (1)..(60)

<400> 21
gga tcc acc ccg ttc ctg gaa gtt aaa gtt acc gac act ccg aaa cgt 48
Gly Ser Thr Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
1 5 10 15
tct cgt aga tct 60
Ser Arg Arg Ser
20

<210> 22
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: MYOS 19 peptide coding sequence,
Figure 11

<400> 22
Gly Ser Thr Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
1 5 10 15
Ser Arg Arg Ser
20

<210> 23
<211> 372
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: reconstructed
myostatin active region, Figure 13

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 <221> CDS
 <222> (1)..(372)

<400> 23
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 1 5 10 15
 acc gaa aga tcc tct cgt tgc tgt cgc tat ccg ctg acc gtt gac ttc 96
 Thr Glu Arg Ser Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe
 20 25 30
 gaa gct ttt ggt tgg gac tgg atc att gca ccg aaa cgt tat aga tcc 144
 Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr Arg Ser
 35 40 45
 aaa cgt tat aaa gct aac tat tgc tct ggt gaa tgc gaa ttc gtt ttc 192
 Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe
 50 55 60
 ctg cag aaa tat ccg cat acc cat ctg gtt cat cag gct aac ccg cgt 240
 Leu Gln Lys Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg
 65 70 75 80
 aga tcc gct ggt ccg tgc tgt tat ccg acc aaa atg tct ccg atc aac 288
 Arg Ser Ala Gly Pro Cys Cys Tyr Pro Thr Lys Met Ser Pro Ile Asn
 85 90 95
 atg ctg tat ttc aac ggt gaa tgc cag atc att tat tgc aaa atc ccg 336
 Met Leu Tyr Phe Asn Gly Glu Cys Gln Ile Ile Tyr Cys Lys Ile Pro
 100 105 110
 gct atg gtt gta gac cgt tgc ggt tgt tct aga tct 372
 Ala Met Val Val Asp Arg Cys Gly Cys Ser Arg Ser
 115 120

<210> 24
 <211> 124
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: reconstructed
 myostatin active region, Figure 13

<400> 24
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 1 5 10 15
 Thr Glu Arg Ser Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe
 20 25 30
 Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr Arg Ser
 35 40 45
 Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe
 50 55 60
 Leu Gln Lys Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg

65		70		75		80									
Arg	Ser	Ala	Gly	Pro	Cys	Cys	Tyr	Pro	Thr	Lys	Met	Ser	Pro	Ile	Asn
				85					90					95	
Met	Leu	Tyr	Phe	Asn	Gly	Glu	Cys	Gln	Ile	Ile	Tyr	Cys	Lys	Ile	Pro
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Ala	Met	Val	Val	Asp	Arg	Cys	Gly	Cys	Ser	Arg	Ser				
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<210> 25

<211> 1473

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: leukotoxin polypeptide carrier, Figures 15A-15D

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<221> CDS

<222> (1)..(1473)

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att	atc	ctc	tat	att	ccc	caa	aat	tac	caa	tat	gat	act	gaa	caa	ggc	96
Ile	Ile	Leu	Tyr	Ile	Pro	Gln	Asn	Tyr	Gln	Tyr	Asp	Thr	Glu	Gln	Gly	
			20					25					30			
aat	ggc	tta	cag	gat	tta	gtc	aaa	gcg	gcc	gaa	gag	ttg	ggg	att	gag	144
Asn	Gly	Leu	Gln	Asp	Leu	Val	Lys	Ala	Ala	Glu	Glu	Leu	Gly	Ile	Glu	
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Val	Gln	Arg	Glu	Glu	Arg	Asn	Asn	Ile	Ala	Thr	Ala	Gln	Thr	Ser	Leu	
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ggc	acg	att	caa	acc	gct	att	ggc	tta	act	gag	cgt	ggc	att	gtg	tta	240
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	65				70				75					80		
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Ser	Ala	Pro	Gln	Ile	Asp	Lys	Leu	Leu	Gln	Lys	Thr	Lys	Ala	Gly	Gln	
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Ala	Leu	Gly	Ser	Ala	Glu	Ser	Ile	Val	Gln	Asn	Ala	Asn	Lys	Ala	Lys	
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Thr	Val	Leu	Ser	Gly	Ile	Gln	Ser	Ile	Leu	Gly	Ser	Val	Leu	Ala	Gly	
		115				120						125				
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Met	Asp	Leu	Asp	Glu	Ala	Leu	Gln	Asn	Asn	Ser	Asn	Gln	His	Ala	Leu	
	130					135					140					

gct	aaa	gct	ggc	ttg	gag	cta	aca	aat	tca	tta	att	gaa	aat	att	gct	480
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Asn	Ser	Val	Lys	Thr	Leu	Asp	Glu	Phe	Gly	Glu	Gln	Ile	Ser	Gln	Phe	
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ggg	tca	aaa	cta	caa	aat	atc	aaa	ggc	tta	ggg	act	tta	gga	gac	aaa	576
Gly	Ser	Lys	Leu	Gln	Asn	Ile	Lys	Gly	Leu	Gly	Thr	Leu	Gly	Asp	Lys	
			180					185					190			
ctc	aaa	aat	atc	ggg	gga	ctt	gat	aaa	gct	ggc	ctt	ggg	tta	gat	gtt	624
Leu	Lys	Asn	Ile	Gly	Gly	Leu	Asp	Lys	Ala	Gly	Leu	Gly	Leu	Asp	Val	
		195					200					205				
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Ile	Ser	Gly	Leu	Leu	Ser	Gly	Ala	Thr	Ala	Ala	Leu	Val	Leu	Ala	Asp	
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aaa	aat	gct	tca	aca	gct	aaa	aaa	gtg	ggg	gcg	ggg	ttt	gaa	ttg	gca	720
Lys	Asn	Ala	Ser	Thr	Ala	Lys	Lys	Val	Gly	Ala	Gly	Phe	Glu	Leu	Ala	
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Asn	Gln	Val	Val	Gly	Asn	Ile	Thr	Lys	Ala	Val	Ser	Ser	Tyr	Ile	Leu	
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gcc	caa	cgt	gtt	gca	gca	ggg	tta	tct	tca	act	ggg	cct	gtg	gct	gct	816
Ala	Gln	Arg	Val	Ala	Ala	Gly	Leu	Ser	Ser	Thr	Gly	Pro	Val	Ala	Ala	
			260				265						270			
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Leu	Ile	Ala	Ser	Thr	Val	Ser	Leu	Ala	Ile	Ser	Pro	Leu	Ala	Phe	Ala	
		275					280					285				
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Gly	Ile	Ala	Asp	Lys	Phe	Asn	His	Ala	Lys	Ser	Leu	Glu	Ser	Tyr	Ala	
	290					295					300					
gaa	cgc	ttt	aaa	aaa	tta	ggc	tat	gac	gga	gat	aat	tta	tta	gca	gaa	960
Glu	Arg	Phe	Lys	Lys	Leu	Gly	Tyr	Asp	Gly	Asp	Asn	Leu	Leu	Ala	Glu	
305					310					315					320	
tat	cag	cgg	gga	aca	ggg	act	att	gat	gca	tcg	gtt	act	gca	att	aat	1008
Tyr	Gln	Arg	Gly	Thr	Gly	Thr	Ile	Asp	Ala	Ser	Val	Thr	Ala	Ile	Asn	
				325					330					335		
acc	gca	ttg	gcc	gct	att	gct	ggg	ggg	gtg	tct	gct	gct	gca	gcc	gat	1056
Thr	Ala	Leu	Ala	Ala	Ile	Ala	Gly	Gly	Val	Ser	Ala	Ala	Ala	Ala	Asp	
			340					345					350			
tta	aca	ttt	gaa	aaa	gtt	aaa	cat	aat	ctt	gtc	atc	acg	aat	agc	aaa	1104
Leu	Thr	Phe	Glu	Lys	Val	Lys	His	Asn	Leu	Val	Ile	Thr	Asn	Ser	Lys	
		355					360					365				
aaa	gag	aaa	gtg	acc	att	caa	aac	tgg	ttc	cga	gag	gct	gat	ttt	gct	1152
Lys	Glu	Lys	Val	Thr	Ile	Gln	Asn	Trp	Phe	Arg	Glu	Ala	Asp	Phe	Ala	
	370					375					380					
aaa	gaa	gtg	cct	aat	tat	aaa	gca	act	aaa	gat	gag	aaa	atc	gaa	gaa	1200

Lys Glu Val Pro Asn Tyr Lys Ala Thr Lys Asp Glu Lys Ile Glu Glu
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 Ile Ile Gly Gln Asn Gly Glu Arg Ile Thr Ser Lys Gln Val Asp Asp
 405 410 415
 ctt atc gca aaa ggt aac ggc aaa att acc caa gat gag cta tca aaa 1296
 Leu Ile Ala Lys Gly Asn Gly Lys Ile Thr Gln Asp Glu Leu Ser Lys
 420 425 430
 gtt gtt gat aac tat gaa ttg ctc aaa cat agc aaa aat gtg aca aac 1344
 Val Val Asp Asn Tyr Glu Leu Leu Lys His Ser Lys Asn Val Thr Asn
 435 440 445
 agc tta gat aag tta atc tca tct gta agt gca ttt acc tcg tct aat 1392
 Ser Leu Asp Lys Leu Ile Ser Ser Val Ser Ala Phe Thr Ser Ser Asn
 450 455 460
 gat tcg aga aat gta tta gtg gct cca act tca atg ttg gat caa agt 1440
 Asp Ser Arg Asn Val Leu Val Ala Pro Thr Ser Met Leu Asp Gln Ser
 465 470 475 480
 tta tct tct ctt caa ttt gct agg gga tcc tag 1473
 Leu Ser Ser Leu Gln Phe Ala Arg Gly Ser
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 <211> 490
 <212> PRT
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 <223> Description of Artificial Sequence: leukotoxin polypeptide carrier,
 Figures 15A-15D
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 Ile Ile Leu Tyr Ile Pro Gln Asn Tyr Gln Tyr Asp Thr Glu Gln Gly
 20 25 30
 Asn Gly Leu Gln Asp Leu Val Lys Ala Ala Glu Glu Leu Gly Ile Glu
 35 40 45
 Val Gln Arg Glu Glu Arg Asn Asn Ile Ala Thr Ala Gln Thr Ser Leu
 50 55 60
 Gly Thr Ile Gln Thr Ala Ile Gly Leu Thr Glu Arg Gly Ile Val Leu
 65 70 75 80
 Ser Ala Pro Gln Ile Asp Lys Leu Leu Gln Lys Thr Lys Ala Gly Gln
 85 90 95
 Ala Leu Gly Ser Ala Glu Ser Ile Val Gln Asn Ala Asn Lys Ala Lys
 100 105 110

Thr	Val	Leu	Ser	Gly	Ile	Gln	Ser	Ile	Leu	Gly	Ser	Val	Leu	Ala	Gly		
		115					120					125					
Met	Asp	Leu	Asp	Glu	Ala	Leu	Gln	Asn	Asn	Ser	Asn	Gln	His	Ala	Leu		
	130						135				140						
Ala	Lys	Ala	Gly	Leu	Glu	Leu	Thr	Asn	Ser	Leu	Ile	Glu	Asn	Ile	Ala		
145					150					155					160		
Asn	Ser	Val	Lys	Thr	Leu	Asp	Glu	Phe	Gly	Glu	Gln	Ile	Ser	Gln	Phe		
				165					170					175			
Gly	Ser	Lys	Leu	Gln	Asn	Ile	Lys	Gly	Leu	Gly	Thr	Leu	Gly	Asp	Lys		
			180					185					190				
Leu	Lys	Asn	Ile	Gly	Gly	Leu	Asp	Lys	Ala	Gly	Leu	Gly	Leu	Asp	Val		
		195					200					205					
Ile	Ser	Gly	Leu	Leu	Ser	Gly	Ala	Thr	Ala	Ala	Leu	Val	Leu	Ala	Asp		
	210					215					220						
Lys	Asn	Ala	Ser	Thr	Ala	Lys	Lys	Val	Gly	Ala	Gly	Phe	Glu	Leu	Ala		
225					230				235						240		
Asn	Gln	Val	Val	Gly	Asn	Ile	Thr	Lys	Ala	Val	Ser	Ser	Tyr	Ile	Leu		
				245					250					255			
Ala	Gln	Arg	Val	Ala	Ala	Gly	Leu	Ser	Ser	Thr	Gly	Pro	Val	Ala	Ala		
			260					265					270				
Leu	Ile	Ala	Ser	Thr	Val	Ser	Leu	Ala	Ile	Ser	Pro	Leu	Ala	Phe	Ala		
		275					280					285					
Gly	Ile	Ala	Asp	Lys	Phe	Asn	His	Ala	Lys	Ser	Leu	Glu	Ser	Tyr	Ala		
	290					295					300						
Glu	Arg	Phe	Lys	Lys	Leu	Gly	Tyr	Asp	Gly	Asp	Asn	Leu	Leu	Ala	Glu		
305					310				315						320		
Tyr	Gln	Arg	Gly	Thr	Gly	Thr	Ile	Asp	Ala	Ser	Val	Thr	Ala	Ile	Asn		
				325					330					335			
Thr	Ala	Leu	Ala	Ala	Ile	Ala	Gly	Gly	Val	Ser	Ala	Ala	Ala	Ala	Asp		
			340					345					350				
Leu	Thr	Phe	Glu	Lys	Val	Lys	His	Asn	Leu	Val	Ile	Thr	Asn	Ser	Lys		
		355					360					365					
Lys	Glu	Lys	Val	Thr	Ile	Gln	Asn	Trp	Phe	Arg	Glu	Ala	Asp	Phe	Ala		
	370					375					380						
Lys	Glu	Val	Pro	Asn	Tyr	Lys	Ala	Thr	Lys	Asp	Glu	Lys	Ile	Glu	Glu		
385					390					395					400		
Ile	Ile	Gly	Gln	Asn	Gly	Glu	Arg	Ile	Thr	Ser	Lys	Gln	Val	Asp	Asp		
				405					410					415			
Leu	Ile	Ala	Lys	Gly	Asn	Gly	Lys	Ile	Thr	Gln	Asp	Glu	Leu	Ser	Lys		
			420					425					430				
Val	Val	Asp	Asn	Tyr	Glu	Leu	Leu	Lys	His	Ser	Lys	Asn	Val	Thr	Asn		

435	440	445
Ser Leu Asp Lys Leu Ile Ser Ser Val Ser Ala Phe Thr Ser Ser Asn		
450	455	460
Asp Ser Arg Asn Val Leu Val Ala Pro Thr Ser Met Leu Asp Gln Ser		
465	470	475
Leu Ser Ser Leu Gln Phe Ala Arg Gly Ser		
485	490	

<210> 27
 <211> 376
 <212> PRT
 <213> Mus musculus

<400> 27

Met Met Gln Lys Leu Gln Met Tyr Val Tyr Ile Tyr Leu Phe Met Leu	
1	15
Ile Ala Ala Gly Pro Val Asp Leu Asn Glu Gly Ser Glu Arg Glu Glu	
20	25
Asn Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Ala Trp Arg Gln Asn	
35	40
Thr Arg Tyr Ser Arg Ile Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys	
50	55
Leu Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Ala Ile Arg Gln	
65	70
Leu Leu Pro Arg Ala Pro Pro Leu Arg Glu Leu Ile Asp Gln Tyr Asp	
85	90
Val Gln Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr	
100	105
His Ala Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe	
115	120
Leu Met Gln Ala Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser	
130	135
Ser Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr	
145	150
Leu Arg Pro Val Lys Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg	
165	170
Leu Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser	
180	185
Leu Lys Leu Asp Met Ser Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp	
195	200
Val Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu	
210	215
Gly Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val	
225	230
	235
	240

Ser Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr
 145 150 155 160
 Leu Arg Ala Val Lys Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg
 165 170 175
 Leu Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser
 180 185 190
 Leu Lys Leu Asp Met Ser Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp
 195 200 205
 Val Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu
 210 215 220
 Gly Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val
 225 230 235 240
 Thr Phe Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val
 245 250 255
 Lys Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp
 260 265 270
 Cys Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr
 275 280 285
 Val Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg
 290 295 300
 Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln
 305 310 315 320
 Lys Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser
 325 330 335
 Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu
 340 345 350
 Tyr Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met
 355 360 365
 Val Val Asp Arg Cys Gly Cys Ser
 370 375

<210> 29
 <211> 375
 <212> PRT
 <213> Homo sapiens

<400> 29
 Met Gln Lys Leu Gln Leu Cys Val Tyr Ile Tyr Leu Phe Met Leu Ile
 1 5 10 15
 Val Ala Gly Pro Val Asp Leu Asn Glu Asn Ser Glu Gln Lys Glu Asn
 20 25 30
 Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Thr Trp Arg Gln Asn Thr
 35 40 45

Lys Ser Ser Arg Ile Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
 50 55 60
 Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Val Ile Arg Gln Leu
 65 70 75 80
 Leu Pro Lys Ala Pro Pro Leu Arg Glu Leu Ile Asp Gln Tyr Asp Val
 85 90 95
 Gln Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
 100 105 110
 Ala Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu
 115 120 125
 Met Gln Val Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
 130 135 140
 Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu
 145 150 155 160
 Arg Pro Val Glu Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu
 165 170 175
 Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
 180 185 190
 Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
 195 200 205
 Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
 210 215 220
 Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr
 225 230 235 240
 Phe Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Lys
 245 250 255
 Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
 260 265 270
 Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
 275 280 285
 Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
 290 295 300
 Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys
 305 310 315 320
 Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala
 325 330 335
 Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
 340 345 350
 Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val
 355 360 365

Val Asp Arg Cys Gly Cys Ser
370 375

<210> 30
<211> 375
<212> PRT
<213> Papio hamadryas

<400> 30
Met Gln Lys Leu Gln Leu Cys Val Tyr Ile Tyr Leu Phe Met Leu Ile
1 5 10 15

Val Ala Gly Pro Val Asp Leu Asn Glu Asn Ser Glu Gln Lys Glu Asn
20 25 30

Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Thr Trp Arg Gln Asn Thr
35 40 45

Lys Ser Ser Arg Ile Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
50 55 60

Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Ala Ile Arg Gln Leu
65 70 75 80

Leu Pro Lys Ala Pro Pro Leu Arg Glu Leu Ile Asp Gln Tyr Asp Val
85 90 95

Gln Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
100 105 110

Ala Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu
115 120 125

Met Gln Val Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
130 135 140

Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu
145 150 155 160

Arg Pro Val Glu Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu
165 170 175

Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
180 185 190

Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
195 200 205

Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
210 215 220

Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr
225 230 235 240

Phe Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Lys
245 250 255

Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
260 265 270

Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
 275 280 285
 Asp Phe Glu Ala Leu Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
 290 295 300
 Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys
 305 310 315 320
 Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala
 325 330 335
 Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
 340 345 350
 Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val
 355 360 365
 Val Asp Arg Cys Gly Cys Ser
 370 375

<210> 31
 <211> 375
 <212> PRT
 <213> bos taurus

<400> 31
 Met Gln Lys Leu Gln Ile Ser Val Tyr Ile Tyr Leu Phe Met Leu Ile
 1 5 10 15
 Val Ala Gly Pro Val Asp Leu Asn Glu Asn Ser Glu Gln Lys Glu Asn
 20 25 30
 Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Leu Trp Arg Glu Asn Thr
 35 40 45
 Thr Ser Ser Arg Leu Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
 50 55 60
 Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Ala Ile Arg Gln Leu
 65 70 75 80
 Leu Pro Arg Ala Pro Pro Leu Leu Glu Leu Ile Asp Gln Phe Asp Val
 85 90 95
 Gln Arg Asp Ala Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
 100 105 110
 Ala Arg Thr Glu Thr Val Ile Thr Met Pro Thr Glu Ser Asp Leu Leu
 115 120 125
 Thr Gln Val Glu Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
 130 135 140
 Lys Ile Gln Tyr Asn Lys Leu Val Lys Ala Gln Leu Trp Ile Tyr Leu
 145 150 155 160
 Arg Pro Val Lys Thr Pro Ala Thr Val Phe Val Gln Ile Leu Arg Leu
 165 170 175

Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
 180 185 190
 Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
 195 200 205
 Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
 210 215 220
 Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr
 225 230 235 240
 Phe Pro Glu Pro Gly Glu Asp Gly Leu Thr Pro Phe Leu Glu Val Lys
 245 250 255
 Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
 260 265 270
 Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
 275 280 285
 Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
 290 295 300
 Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys
 305 310 315 320
 Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala
 325 330 335
 Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
 340 345 350
 Phe Asn Gly Glu Gly Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val
 355 360 365
 Val Asp Arg Cys Gly Cys Ser
 370 375

<210> 32
 <211> 375
 <212> PRT
 <213> Sus scrofa

<400> 32
 Met Gln Lys Leu Gln Ile Tyr Val Tyr Ile Tyr Leu Phe Met Leu Ile
 1 5 10 15
 Val Ala Gly Pro Val Asp Leu Asn Glu Asn Ser Glu Gln Lys Glu Asn
 20 25 30
 Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Met Trp Arg Gln Asn Thr
 35 40 45
 Lys Ser Ser Arg Leu Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
 50 55 60
 Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Ala Ile Arg Gln Leu
 65 70 75 80

Leu Pro Arg Ala Pro Pro Leu Arg Glu Leu Ile Asp Gln Tyr Asp Val
 85 90 95
 Gln Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
 100 105 110
 Ala Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Leu Leu
 115 120 125
 Met Gln Val Glu Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
 130 135 140
 Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu
 145 150 155 160
 Arg Pro Val Lys Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu
 165 170 175
 Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
 180 185 190
 Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
 195 200 205
 Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
 210 215 220
 Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr
 225 230 235 240
 Phe Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Lys
 245 250 255
 Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
 260 265 270
 Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
 275 280 285
 Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
 290 295 300
 Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys
 305 310 315 320
 Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala
 325 330 335
 Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
 340 345 350
 Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val
 355 360 365
 Val Asp Arg Cys Gly Cys Ser
 370 375

<210> 33
 <211> 375

<212> PRT
 <213> Ovis aries

<400> 33

Met	Gln	Lys	Leu	Gln	Ile	Phe	Val	Tyr	Ile	Tyr	Leu	Phe	Met	Leu	Leu	1	5	10	15
Val	Ala	Gly	Pro	Val	Asp	Leu	Asn	Glu	Asn	Ser	Glu	Gln	Lys	Glu	Asn	20	25	30	
Val	Glu	Lys	Lys	Gly	Leu	Cys	Asn	Ala	Cys	Leu	Trp	Arg	Gln	Asn	Asn	35	40	45	
Lys	Ser	Ser	Arg	Leu	Glu	Ala	Ile	Lys	Ile	Gln	Ile	Leu	Ser	Lys	Leu	50	55	60	
Arg	Leu	Glu	Thr	Ala	Pro	Asn	Ile	Ser	Lys	Asp	Ala	Ile	Arg	Gln	Leu	65	70	75	80
Leu	Pro	Arg	Ala	Pro	Pro	Leu	Arg	Glu	Leu	Ile	Asp	Gln	Tyr	Asp	Val	85	90	95	
Gln	Arg	Asp	Asp	Ser	Ser	Asp	Gly	Ser	Leu	Glu	Asp	Asp	Asp	Tyr	His	100	105	110	
Val	Thr	Thr	Glu	Thr	Val	Ile	Thr	Met	Pro	Thr	Glu	Ser	Asp	Leu	Leu	115	120	125	
Ala	Glu	Val	Gln	Glu	Lys	Pro	Lys	Cys	Cys	Phe	Phe	Lys	Phe	Ser	Ser	130	135	140	
Lys	Ile	Gln	His	Asn	Lys	Val	Val	Lys	Ala	Gln	Leu	Trp	Ile	Tyr	Leu	145	150	155	160
Arg	Pro	Val	Lys	Thr	Pro	Thr	Thr	Val	Phe	Val	Gln	Ile	Leu	Arg	Leu	165	170	175	
Ile	Lys	Pro	Met	Lys	Asp	Gly	Thr	Arg	Tyr	Thr	Gly	Ile	Arg	Ser	Leu	180	185	190	
Lys	Leu	Asp	Met	Asn	Pro	Gly	Thr	Gly	Ile	Trp	Gln	Ser	Ile	Asp	Val	195	200	205	
Lys	Thr	Val	Leu	Gln	Asn	Trp	Leu	Lys	Gln	Pro	Glu	Ser	Asn	Leu	Gly	210	215	220	
Ile	Glu	Ile	Lys	Ala	Leu	Asp	Glu	Asn	Gly	His	Asp	Leu	Ala	Val	Thr	225	230	235	240
Phe	Pro	Glu	Pro	Gly	Glu	Glu	Gly	Leu	Asn	Pro	Phe	Leu	Glu	Val	Lys	245	250	255	
Val	Thr	Asp	Thr	Pro	Lys	Arg	Ser	Arg	Arg	Asp	Phe	Gly	Leu	Asp	Cys	260	265	270	
Asp	Glu	His	Ser	Thr	Glu	Ser	Arg	Cys	Cys	Arg	Tyr	Pro	Leu	Thr	Val	275	280	285	
Asp	Phe	Glu	Ala	Phe	Gly	Trp	Asp	Trp	Ile	Ile	Ala	Pro	Lys	Arg	Tyr	290	295	300	

Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Leu Phe Leu Gln Lys
 305 310 315 320

Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Lys Gly Ser Ala
 325 330 335

Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
 340 345 350

Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Gly Met Val
 355 360 365

Val Asp Arg Cys Gly Cys Ser
 370 375

<210> 34

<211> 375

<212> PRT

<213> Gallus gallus

<400> 34

Met Gln Lys Leu Ala Val Tyr Val Tyr Ile Tyr Leu Phe Met Gln Ile
 1 5 10 15

Ala Val Asp Pro Val Ala Leu Asp Gly Ser Ser Gln Pro Thr Glu Asn
 20 25 30

Ala Glu Lys Asp Gly Leu Cys Asn Ala Cys Thr Trp Arg Gln Asn Thr
 35 40 45

Lys Ser Ser Arg Ile Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
 50 55 60

Arg Leu Glu Gln Ala Pro Asn Ile Ser Arg Asp Val Ile Lys Gln Leu
 65 70 75 80

Leu Pro Arg Ala Pro Pro Leu Gln Glu Leu Ile Asp Gln Tyr Asp Val
 85 90 95

Gln Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
 100 105 110

Ala Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu
 115 120 125

Val Gln Met Glu Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
 130 135 140

Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu
 145 150 155 160

Arg Gln Val Gln Lys Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu
 165 170 175

Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
 180 185 190

Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
 195 200 205

Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
 210 215 220
 Ile Glu Ile Lys Ala Phe Asp Glu Thr Gly Arg Asp Leu Ala Val Thr
 225 230 235 240
 Phe Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Arg
 245 250 255
 Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
 260 265 270
 Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
 275 280 285
 Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
 290 295 300
 Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys
 305 310 315 320
 Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala
 325 330 335
 Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
 340 345 350
 Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val
 355 360 365
 Val Asp Arg Cys Gly Cys Ser
 370 375

<210> 35
 <211> 375
 <212> PRT
 <213> Meleagris gallopavo

<400> 35
 Met Gln Ile Leu Ala Val Tyr Val Tyr Ile Tyr Leu Phe Met Gln Ile
 1 5 10 15
 Leu Val His Pro Val Ala Leu Asp Gly Ser Ser Gln Pro Thr Glu Asn
 20 25 30
 Ala Glu Lys Asp Gly Leu Cys Asn Ala Cys Thr Trp Arg Gln Asn Thr
 35 40 45
 Lys Ser Ser Arg Ile Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys Leu
 50 55 60
 Arg Leu Glu Gln Ala Pro Asn Ile Ser Arg Asp Val Ile Lys Gln Leu
 65 70 75 80
 Leu Pro Arg Ala Pro Pro Leu Gln Glu Leu Ile Asp Gln Tyr Asp Val
 85 90 95
 Gln Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
 100 105 110

Ala Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu
 115 120 125
 Val Gln Met Glu Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
 130 135 140
 Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu
 145 150 155 160
 Arg Gln Val Gln Lys Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu
 165 170 175
 Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
 180 185 190
 Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
 195 200 205
 Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
 210 215 220
 Ile Glu Ile Lys Ala Phe Asp Glu Asn Gly Arg Asp Leu Ala Val Thr
 225 230 235 240
 Phe Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Arg
 245 250 255
 Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
 260 265 270
 Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
 275 280 285
 Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
 290 295 300
 Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys
 305 310 315 320
 Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala
 325 330 335
 Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
 340 345 350
 Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val
 355 360 365
 Val Asp Arg Cys Gly Cys Ser
 370 375

<210> 36
 <211> 374
 <212> PRT
 <213> Danio rerio

<400> 36
 Met His Phe Thr Gln Val Leu Ile Ser Leu Ser Val Leu Ile Ala Cys
 1 5 10 15

Gly	Pro	Val	Gly	Tyr	Gly	Asp	Ile	Thr	Ala	His	Gln	Gln	Pro	Ser	Thr		
		20						25					30				
Ala	Thr	Glu	Glu	Ser	Glu	Leu	Cys	Ser	Thr	Cys	Glu	Phe	Arg	Gln	His		
		35					40					45					
Ser	Lys	Leu	Met	Arg	Leu	His	Ala	Ile	Lys	Ser	Gln	Ile	Leu	Ser	Lys		
	50					55					60						
Leu	Arg	Leu	Lys	Gln	Ala	Pro	Asn	Ile	Ser	Arg	Asp	Val	Val	Lys	Gln		
	65				70					75					80		
Leu	Leu	Pro	Arg	Ala	Pro	Pro	Leu	Gln	Gln	Leu	Leu	Asp	Gln	Tyr	Asp		
				85					90					95			
Val	Leu	Gly	Asp	Asp	Ser	Lys	Asp	Gly	Ala	Val	Glu	Glu	Asp	Asp	Glu		
		100						105					110				
His	Ala	Thr	Thr	Glu	Thr	Ile	Met	Thr	Met	Ala	Thr	Glu	Pro	Asp	Pro		
		115					120					125					
Ile	Val	Gln	Val	Asp	Arg	Lys	Pro	Lys	Cys	Cys	Phe	Phe	Ser	Phe	Ser		
	130					135					140						
Pro	Lys	Ile	Gln	Ala	Asn	Arg	Ile	Val	Arg	Ala	Gln	Leu	Trp	Val	His		
	145				150					155					160		
Leu	Arg	Pro	Ala	Glu	Glu	Ala	Thr	Thr	Val	Phe	Leu	Gln	Ile	Ser	Arg		
				165					170					175			
Leu	Met	Pro	Val	Lys	Asp	Gly	Gly	Arg	His	Arg	Ile	Arg	Ser	Leu	Lys		
		180						185					190				
Ile	Asp	Val	Asn	Ala	Gly	Val	Thr	Ser	Trp	Gln	Ser	Ile	Asp	Val	Lys		
	195						200					205					
Gln	Val	Leu	Thr	Val	Trp	Leu	Lys	Gln	Pro	Glu	Thr	Asn	Arg	Gly	Ile		
	210					215					220						
Glu	Ile	Asn	Ala	Tyr	Asp	Ala	Lys	Gly	Asn	Asp	Leu	Ala	Val	Thr	Ser		
	225				230				235						240		
Thr	Glu	Thr	Gly	Glu	Asp	Gly	Leu	Leu	Pro	Phe	Met	Glu	Val	Lys	Ile		
			245						250					255			
Ser	Glu	Gly	Pro	Lys	Arg	Ile	Arg	Arg	Asp	Ser	Gly	Leu	Asp	Cys	Asp		
			260					265					270				
Glu	Asn	Ser	Ser	Glu	Ser	Arg	Cys	Cys	Arg	Tyr	Pro	Leu	Thr	Val	Asp		
		275					280					285					
Phe	Glu	Asp	Phe	Gly	Trp	Asp	Trp	Ile	Ile	Ala	Pro	Lys	Arg	Tyr	Lys		
	290					295					300						
Ala	Asn	Tyr	Cys	Ser	Gly	Glu	Cys	Asp	Tyr	Met	Tyr	Leu	Gln	Lys	Tyr		
	305				310				315						320		
Pro	His	Thr	His	Leu	Val	Asn	Lys	Ala	Ser	Pro	Arg	Gly	Thr	Ala	Gly		
				325					330					335			

Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr Phe
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Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ser Met Val Val
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Asp Arg Cys Gly Cys Ser
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